

WHAT IS CLAIMED IS:

1. A method for cloning or subcloning one or more desired nucleic acid molecules comprising:
 - (a) combining *in vitro* or *in vivo*
 - (i) one or more Insert Donor molecules comprising one or more desired nucleic acid segments flanked by at least two recombination sites, wherein said recombination sites do not substantially recombine with each other;
 - (ii) one or more Vector Donor molecules comprising at least two recombination sites, wherein said recombination sites do not substantially recombine with each other; and
 - (iii) one or more site-specific recombination proteins;
 - (b) incubating said combination under conditions sufficient to transfer one or more of said desired segments into one or more of said Vector Donor molecules, thereby producing one or more desired Product nucleic acid molecules;
 - (c) combining *in vitro* or *in vivo*
 - (i) one or more of said Product molecules comprising said desired segments flanked by two or more recombination sites, wherein said recombination sites do not substantially recombine with each other;
 - (ii) one or more different Vector Donor molecules comprising two or more recombination sites, wherein said recombination sites do not substantially recombine with each other; and
 - (iii) one or more site-specific recombination proteins; and
 - (d) incubating said combination under conditions sufficient to transfer one or more of said desired segments into one or more different Vector Donor molecules, thereby producing one or more different Product molecules.